



SPRING 2008

3MOONS

METHODOLOGY DIRECTORATE
LEADING THE DEVELOPMENT OF STATISTICAL METHODS

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This is the 11th issue of Methodology Directorate's (MD's) quarterly overview of methodological issues in ONS. The tenth issue covered aspects such as: revisions to time series, e-learning, a secondment in New Zealand, the Methodology Consultancy Service, and an introduction to Data Visualisation. Read on for the latest news from MD.

NEWS

Advisory committee meetings

- The 14th National Statistics Methodology Advisory Committee (NSMAC) meeting was held on 13 May 2008 in London. The following topics were discussed: state space approach to signal extraction for uncertain data; comparison of average weekly earnings and average earnings index; qualitative business surveys: signal or noise; and small domain estimation in business surveys.

Topics are welcomed for the following NSMAC meeting to be held in October/November 2008. Please email suggestions and abstracts to Louisa.Nolan@ons.gsi.gov.uk by 15 June 2008.

- The UK Census Design & Methodology Advisory Committee (UKCDMAC) meeting on 24 April 2008 discussed: population output bases and definitions – and coverage assessment methods. For further details, contact Peter. Benton@ons.gsi.gov.uk.

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Data Collection Methodology for Business Surveys

Data Collection Methodology (DCM) has branches in Newport (Business), London (Social) and Titchfield (Census). The business survey team in Newport is eight strong, including a home worker (who lives in the Northeast), and have diverse backgrounds: psychology, criminology, history, social research methods, demography, biology, and archaeology.

Heading the business survey team is, me, Elspeth Maclean, formerly of Statistics New Zealand.

DCM(B)'s aim is to reduce non-sampling error caused by misunderstandings of the questions we ask, the inability of respondents to provide the data we ask for and mistakes made because of problems with following the order and layout of questionnaires.

In addition to questionnaire development and testing, DCM(B) are involved in improving communication with respondents – from new respondent letters and reminders, SEFT (a secure website for respondents to receive and return spreadsheet questionnaires) to the new telephone data entry (TDE) system.

We recently redeveloped the UK version of the European Community Innovation Survey. First we anglicized the Eurostat questions and, by applying visual design and layout standards, included them in the questionnaire. We then took the questionnaire out to real respondents and conducted 'cognitive interviews' to record respondents' thoughts as they completed the questionnaire. Thematic analysis of these data, and other techniques, led to understanding of the 'response process' and revisions to make the questionnaire more 'respondent focused'.

The end result, we hope, is that we gather the data we actually want!

DCM(B) has proved its worth, having a positive impact on both respondents and ONS – fewer complaints and edit failures leading to improved data quality and efficiency gains. The good reports are spreading – Eurostat have requested more details about the ONS questionnaire development process.

All of the team really enjoy getting out and talking to ONS business survey respondents. Our job gives us the opportunity to make a real difference to respondents and the quality of data ONS produces.

For more details about the work of DCM(B), please contact Elspeth.Maclean@ons.gsi.gov.uk.

Independence and its impact on Methodology

So, 1 April 2008 brought independence for ONS. Leaving aside the celebrations, the numerous cake cutting ceremonies and the shiny new signs outside our offices, how is this going to impact on the work and life of methodologists in ONS?

The top level restructure of the Office provides the opportunity for us to contribute strongly to the leadership of Transformation of statistics, supporting our new Director-General, Rolande Anderson. We are 'agents for change', along with colleagues in Information Management and central services. We continue to support Statistics Delivery and will also make an independent and strategic contribution to statistical transformation in ONS. This has been emphasised by the decision to strengthen MD by adding classifications and geography, headed by Graham Jenkinson. Again, these are statistical services that range right across ONS (and the Government Statistical Service), so fit

neatly in MD – echoing the duties of the UK Statistics Authority to 'develop, maintain and promote definitions, methodologies, classifications and standards for official statistics.'

The main thrust of Independence is increasing trust in official statistics. A key element will be the assessment of all National Statistics. Assessments will be carried out by a team headed by Richard Alldritt outside ONS, working directly to the UK Statistics Authority. It will increase the importance of the work we do and refocus it. We expect that both in ONS and the wider GSS there will be considerable pre- and post-assessment work required, as improvements are sought, explored and implemented.

For ONS work, MD is already heavily oversubscribed, so we will need to continue to ruthlessly prioritise what we do. For the GSS, MD has very recently created a nascent

Methodology Consultancy Service which will offer help to our colleagues on a repayment basis. Interest in this is already strong and we are now looking seriously at how training across the GSS should be strengthened.

Quality standards for official statistics are also going to feature strongly in the new world. MD's Quality Centre has been advising on quality procedures and quality assessment in the run-up to Independence. We are progressing ONS policies across the breadth of the Statistical Value Chain and also are finalising an updated ONS Quality Strategy. We think that almost everything we support, from Survey Control to disclosure policy, will come under scrutiny – and this will give us real opportunities to make an impact and improve the quality of statistics.

So, we think we're in for an exciting time!

Martin Brand

continued
NEWS

MD – GSS forum meeting

The latest meeting of the National Statistics Quality and Methodology Programme Board (hosted by MD), on 18 March in London, discussed: ONS independence, UK Statistics Authority assessment function, Methodology Consultancy Service, X-13-SEATS evaluation task force, matching survey and administrative data, and coherence of official and business survey data. The next meeting will be held in October. Please email suggestions for potential agenda items to David.Matthewson@ons.gsi.gov.uk.

Secondments

MD welcomes applicants from UK government departments and other national statistics institutes for short and long-term secondments. Both organisations benefit from the knowledge-sharing and training elements these arrangements offer. For more information, please contact Peter.Gittins@ons.gsi.gov.uk. To see all current jobs in ONS, please visit www.statistics.gov.uk/recruitment

Staff news

Stephen Penneck has been appointed as Director of Methodology; Martin Brand will resume his previous position as Deputy director in charge of Survey Methodology and Quality division. Graham Jenkinson also joins Methodology, as Deputy director in charge of a third division comprising: Geography, Classifications, the Methodology Consultancy Service and the Statistical Training Unit.

Recent MD conference presentations

2008 Young Statisticians Meeting (18-19 April): 'Protecting the Confidentiality of Tabular Outputs and the 2011 Census' - Caroline Young, 'Seasonal Adjustment of Time Series in ONS' - Gary Brown.



Organisers of YSM2008: Hannah Finselbach, Rob Bucknall, Richard Perry, Nick Woodhill, Mila Teneva.

Upcoming conferences

Registration is now open for the 13th GSS Methodology Conference, to be held on 23 June 2008 at The Congress Centre, 28 Great Russell Street, London, WC1B 3LS. Registration is on a first come basis and there are a limited number of spaces. For full details and the registration form, see: <http://www.ons.gov.uk/about/newsroom/events/thirteenth-gss-methodology-conference--23-june-2008/index.html>

Recent publications

The GSS Methodology Series No37: Estimating alcohol consumption from survey data: updated method of converting volumes to units <http://nswebcopy/statbase/product.asp?vlnk=15067>



Best Practice Given Added ImPetus at ONS

ONS is experiencing a period of unprecedented change as a result of independence. Collectively we are working to build public trust in our statistics, while all the time balancing increasing demands with decreasing resources.

The Methodology Directorate Quality Centre is piloting an important new project designed to help address some of these issues by helping us spread innovative ideas. The Improvement Practices Database (ImPdb) will identify, collect and share quality initiatives, ideas and best practice throughout ONS. At a business area level, ImPdb will provide access to initiatives that can demonstrate real business benefits while, at a corporate level, contributors will be helping to meet the increasing responsibility placed on ONS for clarity in our procedures and quality standards.

To pilot the initiative, staff from selected directorates in the organisation have been invited to complete an ImPdb questionnaire which will feed into a repository database of best practice. This will allow the user to identify improvement activities by a number of criteria including: the problem experienced within the team prior to the introduction of the improvement activity; the benefits the activity delivered; and where this activity fits into the wider activities of ONS as defined by the Statistical Value Chain (SVC) (for statistical activities) and Michael Porter's Value Chain (for non-statistical activities in the organisation). Although initially held on a Lotus Notes database, the intention is to introduce an intranet-based repository containing details of best practice in broad areas of quality by late 2008.

Early examples of improvement practices made available for consideration via the database include:

1. the use of Basic Quality Information (BQI) in our statistical releases and the benefit of Summary Quality Reports (SQRs) that pull together key qualitative information on the various dimensions of quality, as well as providing a summary of methods used to compile the output
2. the work of the Data Visualisation Centre in ONS Methodology Directorate in designing and producing innovative data graphics for analysis and presentation/publication
3. the work of the Focus on Improvement team in Business Data Division (BDD) in helping BDD staff to think about the current processes they use, question whether the processes add value, make improvements where necessary and, ultimately, make a difference in the way they work

An additional piece of research will analyse the responses received to understand the conditions that enabled improvement and/or innovation to occur

For a copy of the ImPdb questionnaire or to discuss further the benefits to using the ImP database, please contact David.Matthewson@ons.gsi.gov.uk

Managing the change to SIC(2007)

When is a door not a door? When it's ajar. It's an old joke but one that is taking on a new meaning for those in the Sample Design and Estimation Centre for business surveys. Why? Because SIC(2007) is coming. Standing for Standard Industrial Classification, SIC is an important factor in the sample design of almost all business surveys run by the ONS. SIC is a hierarchical five digit classification describing the economic activity of businesses in the UK, with the first four digits of the classification identical to that used by other EU member states. Implementation of the new SIC is staggered over several years, starting with dual-coding of the business register from January 2008. The last ONS outputs to move to the new SIC will be the National Accounts in 2011, with the timing of the change being co-ordinated across Europe. The change has implications for almost every business survey, and necessitates reviewing all aspects of the statistical value chain, from data collection through sample design, imputation and estimation. With methodological resource being at a premium, it's really no joke at all!

So why is this happening? Well, we can all see the economy changing in our everyday lives. There's always a new gadget to make our lives easier or a new service to, well, make our lives easier and ONS needs to measure that. Samples based on coal mining and car manufacture can't measure the UK call centre expansion very well. Gareth James is the Principal Methodologist leading the methodological work in the move to the new classification. 'It will require input from all areas of Methodology Directorate over the next few years,' said Gareth. 'The main annual business surveys are being redesigned this year, with the rest of our surveys changing over the following couple of years, and there will be a period of dual-running while all the surveys are being changed.' As well as co-ordinating work on the redesign of survey samples, Gareth has also been developing methods for backcasting historical data series for the short term statistics. He added, 'It's a huge task but, as the whole of MD is working together, I'm confident we will achieve it.'

In Search of a Question on Sexual Identity

There is an increasing requirement to collect data on sexual identity for equality monitoring purposes now that it is recognised as a diversity strand of equal importance to gender, race, age and disability.

Data Collection Methodology for Social Surveys is currently developing a question to measure self-perceived sexual identity that can be used on social surveys. This work is being carried out on behalf of Social and Health Analysis and Reporting Division. The key issues of interest are the conceptualisation of sexual identity; language used and understood; acceptability; and how to administer the question in a household environment.

We initially conducted a review of the literature and a review of the experiences of survey organisations in the UK and internationally which have already collected data on this subject. A paper has been written explaining the background context: the legislation relating to equality, the diversity agenda, and the consequent responsibility of ONS to collect baseline data.

Both qualitative and quantitative methodologies have been used to develop a prototype question. This involved conducting focus groups and testing several versions of the question on the NS Omnibus survey to find out which mode and question format should be recommended.

The focus groups were conducted with members of the public about the concepts, language and their views of being asked about sexual identity on a social survey. We included heterosexual, gay, lesbian and bisexual people in the focus groups. The question has been trialled on the NS Omnibus survey using both CASI (the respondent completes the question themselves on the laptop) and CAPI (the interviewer administers the question and the respondent reads out a corresponding number from a showcard). This was to explore how privacy could best be maintained without compromising the flow of the questionnaire or drawing unnecessary

attention to the question. Interviewer and field manager feedback was also sought.

A trial on the General Lifestyle Survey is currently in the field to test the recommended prototype question in CAPI and CATI (telephone administration) in a concurrent environment – that is where more than one person in the household is interviewed at the same time.

The next phase will involve conducting individual cognitive/in-depth interviews with subgroups that could not be covered in the focus groups. This will include the transgender community, people living in more rural areas, people from minority ethnic and faith groups and the youngest (16–19) and oldest (over 65) age groups.

For further information, please follow the link below or contact us via the sexual identity project mailbox: sexual.identity@ons.gov.uk

<http://www.statistics.gov.uk/about/data/measuring-equality/sexual-identity/default.asp>

A selection of reports and papers are also available on the website including:

- Wilmot, A (2007) 'In search of a question on sexual identity'
- Hand, C, & Betts, P (2008) 'Developing survey questions on sexual identity: The legislative context'
- Betts, P (2008) 'Developing survey questions on sexual identity: UK experiences of administering survey questions on sexual identity/orientation'
- Taylor, T (2008) 'Developing survey questions on sexual identity: Review of International organisations' experiences of administering questions on sexual identity orientation'
- Taylor, T (2008) 'Developing survey questions on sexual identity: Report on National Statistics Omnibus Survey trials 1 and 2'

Your questions answered (please send to 3moons@ons.gsi.gov.uk)

In this issue, we can finally reveal the new editor of 3MOONS. After this edition (a joint effort), Gary Brown is finally handing over the reins to Duncan Elliott. Thanks again for all your queries, from home and abroad - keep them coming!

